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13. ABSTRACT (Maximum 200 words) <p>This report is the third in a series that documents the progression of a research effort aimed at developing stochastic vehicle mobility forecasting capabilities using the NATO Reference Mobility Model, edition II (NRMM II). The first report introduced the basic concepts and procedures. The second report described extensions of the procedures and demonstrated the application of these procedures to two historical mobility assessments that were influential in the procurement of some current U.S. Army vehicles. The procedures described in these first two reports characterized the variability of the NRMM II empirical relationships using small-scale data sets and/or judgment. The intent was only to demonstrate the viability of the stochastic forecasting concepts.</p> <p>The effort reported in this third report was conducted to facilitate a more accurate characterization of the variability in the cross-country traction empirical relationships. The approach was to: (1) thoroughly examine the empirical relationships in terms of fundamental origins and implemented use, and (2) economically develop a database that will accurately characterize the variability of each relationship. As a result, databases were developed for 65 of the 70 NRMM II empirical relationships for vehicle traction on soil covered terrain, and these databases will facilitate at least a conjectural evaluation of the variability in all 70. When variability characterizations based on these new databases are implemented (continued on back)</p>				
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into the stochastic forecasting procedures, more accurate risk assessments will result.

Another result of this research was the observation that some of the NRMM II traction relationships are in need of attention for model improvements. Quick improvements were possible for some, and these improvements are proposed for implementation into NRMM in this report. For others it was feasible only to make recommendations for future improvements.